

Bibliography of Soviet Laser Developments

March - April 1988

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No. 94

MARCH - APRIL 1988

Date of Report

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Vice Director for Foreign Intelligence Defense Intelligence Agency

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20. ABSTRACT

This is the Soviet Laser Bibliography for March-April 1988, and is No. 94 in a continuing series on Soviet laser developments. The coverage includes basic research on solid state, liquid, gas, and chemical lasers; components; nonlinear optics; spectroscopy of laser materials; ultrashort pulse generation; theoretical aspects of advanced lasers; and general laser theory. Laser applications are listed under biological effects; communications systems; beam propagation; adaptive optics; computer technology; holography; laserinduced chemical reactions; measurement of laser parameters; laser measurement applications; laser-excited optical effects; laser spectroscopy; beam-target interaction; and plasma generation and diagnostics.

INTRODUCTION

This bibliography has been compiled under an interagency agreement as a continuing effort to document current Soviet-bloc developments in the quantum electronics field. The period covered is March - April 1988, and includes all significant laser-related articles received by us in that interval. The bulk of the entries come from the approximately 30 periodicals which are known to publish the most significant findings in Soviet laser technology. Citations from the Soviet Reference Journals (journals of abstracts) are also included. Laser items from the popular or semipopular press are generally omitted. All sources cited with no parenthetical notation are available at the Library of Congress. A parenthetical entry indicates the secondary source in which the citation was found as a bibliographic entry or abstract, but for which the original source is not currently available at the Library.

Since our computer is not now able to print between lines, superscripts and subscripts are indicated by (sup) and (sub).

We are producing the entire bibliography on computer. To make our bibliography compatible with other data bases, for source abbreviations, we use the letter codens generally used in our own government rather than transliterations of abbreviations used in the Soviet Union. Likewise, we use letter codens to designate affiliations. The authors' affiliations are indicated in parentheses after the authors' names in the text. Empty parentheses indicate that the affiliation was not given. A source abbreviations list, authors' affiliations list, and author index are included in the back of the bibliography.

Due to funding constraints this is the last issue that will be published of the "Bibliography of Laser Developments".

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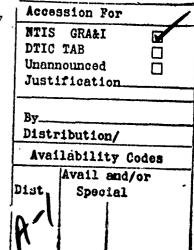
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IV. SOURCE ABBREVIATIONS

(Note: CTC = cover-to-cover translation available)

AKZHA Akusticheskiy źhurnal (CTC)

AVMEB Avtometriya (CTC)

CLaSSMol Seminar: Lazernaya spektroskopiya slozhnykh

molekul. (IFANEst)

CVKRRadi Vsesoyuznaya konferentsiya po

rasprostraneniya radiovoln

CVKTPPri Vsesoyuznaya konferentsiya: Troynyye

poluprovodniki i ikh primeneniye

CVSOpTom Vsesoyuznyy seminar po opticheskoy tomografii

DANKA Akademiya nauk SSSR. Doklady (CTC)

EKVZA Elektrosvyaz' (CTC)

EOBMA Elektronnaya obrabotka materialov (CTC)

FGVZA Fizika goreniya i vzryva (CTC)

FKOMA Fizika i khimiya obrabotki materialov

FKSTD Fizika i khimiya stekla (CTC)

FTPPA Fizika i tekhnika poluprovodnikov (CTC)

FTVTA Fizika tverdogo tela (CTC)

IAAFA Akademiya nauk Armyanskoy SSR. Izvestiya.

Fizika

IAFMA Akademiya nauk Azerbaydzhanskoy SSR.

Izvestiya. Seriya fiziko-tekhnicheskikh

matematicheskikh nauk

IAFZA Akademiya nauk SSSR. Izvestiya. Fizika

zemli (CTC)

IANFA Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya (CTC) IASKA Akademiya nauk SSSR. Izvestiya. Seriya khimicheskaya (CTC) ITUFA Akademiya nauk Turkmenskoy SSR. Izvestiya. Seriya fiziko-tekhnicheskikh, khimicheskikh i geologicheskikh nauk **IUZFA** nauk Uzbekskoy SSR. Izvestiya. Akademiya Šeriya fiziko-matematicheskikh nauk **IVNMA** SSSR. Izvestiya. Akademiya nauk Neorganicheskiye materialy (CTC) **IVUBA** Izvestiya vysshikh uchebnykh ' zavedeniy. Priborostroyeniye (CTC) Izvestiya vysshikh uchebnykh zavedeniy. **IVUFA** Fizika (CTC) **IVUOA** Izvestiya vysshikh uchebnykh zavedeniy. Gornyy zhurnal IVYRA Izvestiya vysshikh uchebnykh zavedeniy. Radiofizika (CTC) IZTEA Izmeritel'naya tekhnika (CTC) KHFID Khimicheskaya fizika (CTC) KRSFA Kratkiye soobshcheniye po fizike (CTC) KVEKA Kvantovaya elektronika (journal, Moskva) (CTC) LFSBA Litovskiy fizicheskiy sbornik (CTC) MTOMA Metallovedeniye i termicheskaya obrabotka materialov (CTC) OPMPA Optiko-mekhanicheskaya promyshlennosť (CTC) **OPSPA** Optika i spektroskopiya (CTC) **PPCNB** Problemy prochnosti (CTC) **PRSUB** Pribory i sistemy upravleniya (CTC)

Pribory i tekhnika eksperimenta (CTC)

PRTEA

PZTFD. Zhurnal tekhnicheskoy fiziki. Pis'ma (CTC) RAELA . Radiotekhnika i elektronika (journal, Moskva) (CTC) **RŻGFA** Referativnyy zhurnal. Geofizika SSR. SAKNA Gruzhinskov Akademiya nauk Soobshcheniye STALA Stal' Tekhnika kino i televideniya TKTEA UFIZA Ukrainskiy fizicheskiy zhurnal (Russian language version) (CTC) VEOFA Vestnik oftal'mologii Moskovskiy universitet. Vestnik. Fizika, **VMUFA** astronomiya (CTC) ZAKHA Zhurnal analiticheskoy khimii (CTC) Zhurnal eksperimental'noy i teoreticheskoy ZETFA fiziki (CTC) Zhurnal eksperimental'noy i teoreticheskoy **ZFPRA** fiziki. Pis'ma (CTC) **ZNPFA** Zhurnal nauchnoy i prikladnoy fotografii i kinematografii (CTC) **ZPMFA** Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki (CTC) **ZPSBA** Zhurnal prikladnoy spektroskopii (CTC) ZTEFA Zhurnal tekhnicheskoy fiziki (CTC)

V. AUTHOR AFFILIATIONS

AKIN

Akusticheskiy institut AN SSSR

Acoustic Institute, Academy of Sciences USSR

API

Altayskiy politekhnicheskiy institut

Altay Polytechnical Institute, Barnaul

AzGU

Azerbaydzhanskiy gosudarstvennyy universitet

Azerbaydzhan State University

BGPI

Birskiy gosudarstvennyy pedagogicheskiy institut

Birsk State Pedagogical Institute

BGU

Belorusskiy gosudarstvennyy universitet

Belorussian State University, Minsk

ChGU

Chernovitskiy gosudarstvennyy universitet

Chernovitsy State University

DGI

Dnepropetrovskiy gornyy institut imeni Artema

Dnepropetrovsk Mining Institute imeni Artem

FIAN

Fizicheskiy institute imeni Lebedeva AN SSSR

Physics Institute imeni Lebedev, Academy of Sciences USSR

FIANKuy

Kuybyshevskiy filial Fizicheskogo instituta AN SSSR

Kuybyshev Branch of the Physics Institute, Academy of Sciences USSR

FTI

Fiziko-tekhnicheskiy institut imeni Ioffe AN SSSR

Physicotechnical Institute imeni Ioffe, Academy of Sciences USSR

FTIANTadzh

Fiziko-tekhnicheskiy institut AN TadzhSSR

Physicotechnical Institute, Academy of Sciences

Tadzhik SSR, Dushanbe

TUINT

Fiziko-tekhnicheskiy institut nizhkikh temperatur AN

Ukr SSR

Physicotechnical Institute of Low Temperature Physics, Academy of Sciences Ukrainian SSR, Kharkov

GEOKhI

Institut geokhimii i analiticheskoy khimii imeni

Vernadskogo AN SSSR

Institute of Geochemistry and analytical Chemistry im

Vernadskiy, Academy of Sciences USSR

GGU

Gor'kovskiy gosudarstvennyy universitet

Gor'kiy State University

GKhIRD

Gidrokhimicheskiy institut

Hydrochemical Institute, Rostov-na-Donu

GOI

Gosudarstvennyy opticheskiy institut imeni Vavilova State Optical Institute imeni Vavilov, Leningrad

COIN

Gosudarstvennyy okeanograficheskiy institut State Oceanographic Institute

GradGII

Grodnenskiy gosudarstvennyy universitet Grodno State University

GrozNI

Groznenskiy neftyanoy institut Groznyy Petroleum Institute

IAE

Institut atomnoy energii imeni Kurchatova Institute of Atomic Energy im Kurchatov, Moscow

IAESUAN

Institut avtomatiki i elektrometrii SOAN Institute of Automation and Electronic Measurements, Siberian Branch Academy of Sciences USSR

TAP

Institut analiticheskogo priborostroyeniya AN SSSR Institute of Analytical Instrument Manufacture, Academy of Sciences USSR

IBFiz

Institut biologicheskoy fiziki AN SSSR Institute of Biological Physics, Academy of Sciences USSR, Pushchino

IBSOAN

Institut biofiziki AN SOAN
Institute of Biophysics, Academy of Sciences
Siberian Branch

IEANBel

Institut elektroniki AN BSSR Institute of Electronics, Academy of Sciences Belorussian SSR, Minsk

IEKMMinzdravEst

Institut eksperimental'noy i klinicheskoy meditsiny Ministerstvo zdravookhraneniya EstSSR Institute of Experimental and Clinical Medicine, Ministry of Health, Estonian SSR

IEM

Institut eksperimental'noy meteorologii Institute of Experimental Meteorology, Obninsk

IFANAz

Institut fiziki AN AzSSR

Institute of Physics, Academy of Sciences Azerbaydzhan SSR

IFANB

Institut fiziki AN BSSR

Institute of Physics, Academy of Sciences Belorussian SSR

IFANBMO

Mogilevskiy filial instituta fiziki AN BSSR. Mogilev Branch of the nstitute of Physics, Academy of Sciences Belorussian SSR

IFANDag

Institut fiziki Dagestanskogo filiala AN SSSR Institute of Physics, Dagestan Branch Academy of Sciences USSR, Makhachkala

IFANEst

Institut fiziki AN Est SSR Institute of Physics, Academy of Sciences Estonian SSR

IFANG

Institut fiziki AN GruzSSR Institute of Physics, Academy of Sciences Georgian SSR, Tbilisi

IFANLi

Institut fiziki AN LitSSR Institute of Physics, Academy of Sciences Lithuanian SSR

IFANUk

Institut fiziki AN ÜkrSSR Institute of Physics, Academy of Sciences Ukrainian SSR, Kiev

IFBioANBelSSR

Institut fotobiologii AN BSSR Institute of Photobiology, Academy of Sciences Belorussian SSR, Minsk

IFI

Institut fizicheskikh issledovaniy AN ArmSSR Institute of Physical Research, Academy of Sciences Armenian SSR

IFM

Institut fiziki metallov Ural'skogo nauchnogo tsentra AN SSSR

Institute of Physics of Metals, Ural Scientific Center, Academy of Sciences, Sverdlovsk

प्रमा

Institut fizicheskikh problem AN SSSR Institute of Problems of Physics, Academy of Sciences USSR

IFPSOAN.

Institut fiziki poluprovodnikov SOAN

Institute of Semiconductor Physics, Siberian

Branch Academy of Sciences USSR, Novosibirsk

IFPV

Institut fiziki poluprovodnikov AN Lit SSR

Institute of Semiconductor Physics, Academy of Sciences Lithuanian SSR, Vilnius

IFRIGANUk

Institut fiziologii rasteniy i genetiki AN UkrSSR

Institute of Plant Physiology and Genetics, Academy

of Sciences Ukrainian SSR, Kiyev (formerly IFRANUk)

IFSOAN

Institut fiziki SOAN

Institute of Physics, Siberian Branch Academy of

Sciences USSR, Krasnoyarsk

IFTT

Institut fiziki tverdogo tela AN SSSR

Institute of Solid State Physics, Academy of

Sciences USSR, Chernogolovka

IFTTP

Institut fiziki tverdogo tela i poluprovodnikov AN BSSR

Institute of Solid State and Semiconductor Physics,

Academy of Sciences Belorussian SSR, Minsk

IGiG

Institut geologii i geofiziki imeni 60-letiya SSSR

AN SSSR

Institute of Geology and Geophysics imeni 60th

Anniversary of the USSR, Academy of Sciences USSR

IKANAz

Institut kibernetiki AN AzSSR

Institute of Cybernetics, Academy of Sciences

Azerbaydzhan SSR

IKEs

Institut kibernetiki AN EstSSR

Institute of Cybernetics, Academy of Sciences

Estonian SSR

IKGr

Institut kibernetiki AN GruzSSR

Institute of Cybernetics, Academy of Sciences

Georgian SSR

IKhAN

Institut khimii AN SSSR

Institute of Chemistry, Academy of Sciences

USSR, Gor'kiy

IKhBFANEs

Institut khimicheskoy i biologicheskoy fiziki

AN EstSSR

Institute of Chemical and Biological Physics,

Academy of Sciences Estonian SSR

· IKhKG

Institute khimicheskoy kinetiki i goreniya SOAN
Institute of Chemical Kinetics and Combustion,
Sibarian Punch Academy of Sciences USSP, Neversibi

Siberian Branch Academy of Sciences USSR, Novosibirsk

IKhNPS

Institut khimii nefti i prirodnykh soley AN KazSSR Institut of Petroleum Chemistry and Mineral Salts, Academy of Sciences Kazakh SSR, Gur'yev

IMF

Institut metallofiziki AN UkrSSR
Institute of Physics of Metals, Academy of Sciences
Ukrainian SSR

IMSS

Institut mekhaniki sploshnykh sred Ural'skogo nauchnogo tsentra AN SSSR Institute of Continuum Mechanics, Ural Science

Center, Academy of Sciences USSR, Perm'

INOZ

Institut ozerovedeniya AN SSSR Institute of Limnology, Academy of Sciences USSR, Leningrad

IOA

Institut optiki atmosfery SOAN
Institute of Atmospheric Optics, Siberian Branch
Academy of Sciences USSR

IOF

Institut obshchey fiziki AN SSSR Institute of General Physics, Academy of Sciences USSR, Moscow

IOFKh

Institut organicheskoy i fizicheskoy khimii Kazanskogo filiala AN SSSR Institute of Organic and Physical Chemistry, Kazan' Branch, Academy of Sciences USSR

IPANUk

Institut poluprovodnikov AN UkrSSR Institute of Semiconductyors, Academy of Sciences Ukrainian SSR, Kiev

IPF

Institut prikladnoy fiziki AN SSSR
Institute of lApplied Physics, Academy of Sciences
USSR, Gor'kiy

IPFANM

Institut prikladnoy fiziki AN MSSR Institute of Applied Physics, Academy of Sciences Moldavian ISSR, Kishinev

IPM

Institut prikladnoy matematiki AN SSSR Institute of Applied Mathematics, Academy of Sciences USSR

IPMe

Institut problem mekhaniki

Institute of Problems of Mechanics, Academy of Sciences USSR. Moscow

IPochF

Institut pochvovedeniya i fotosinteza AN SSSR,

Pushchino, Moskovskaya oblasť

Institute of Soil Science and Photosynthesis,

Academy of Sciences USSR, Pushchino, Moscow Oblast

IPPMM

Institut prikladnykh problem mekhaniki i matematiki AN UkrSSR

Institute of Applied Problems in Mechanics and

Mathematics, Academy of Sciences Ukrainian SSR, L'vov

IPTMOM

Institut problem tekhnologii mikroelektroniki i osobochistykh materialov AN SSSR

Institute for Problems of the Technology of

Microelectronics and Extra Pure Materials, Academy of Sciences USSR, Chernogolovka

IRE

Institut radiotekhniki i elektroniki AN SSSR

Institute of Radioengineering and Electronics, Academy of Sciences, Moscow

ISAN

Institut spektroskopii AN SSSR

Institute of Spectroscopy, Academy of Sciences USSR

ISE

Institut sil'notochnov elektroniki SOAN

Institute of Hich-Current Electronics, Siberian Branch Academy of Sciences USSR, Tomsk

ITEFIIk

Institut teoreticheskoy fiziki AN UkrSSR

Institute of Theoretical Physics, Academy of Sciences

Ukrainian SSR, Kiev

ITF

Institut teplofiziki SOAN

Institute of Thermophysics, Siberian Branch Academy of Sciences USSR, Novosibirsk

IVTAN

Institut vysokikh temperatur AN SSSR

Institute of High Temperatures, Academy of Sciences USSR

IYaFANUz

Institut yadernoy fiziki AN UzSSR

Institute of Nuclear Physics, Academy of Sciences Uzbek SSR, Ulugbek

IYaIAN

institut yadernykh issledovaniy AN SSSR

Instutue of Nuclear Research, Academy of Sciences

Ussr, Moscow

KarMK

Karagandinskiy metallurgicheskiy kombinat

Karaganda Metallurgical Plant

KazFTI

Kazanskiy fiziko-tekhnicheskiy institut AN SSSR Kazan' Physicotekchnical Institute, Academy of Sciences USSR

KGU

Kiyevskiy gosudarstvennyy universitet Kiev State University

KhII

Khersonskiy industrial'nyy institut Kherson Industrial Institute

KhGU

Khar'kovskiy gosudarstvennyy institut Khar'kov State University

KhPI

Khar'kovskiy politekhnicheskiy institut Khar'kov Polytechnical Institute

KhPISF

Sumskiy filial Khar'kovskogo politekhnicheskogo instituta

Sumy Affiliate of Khar'kov Polytechnical Institute

KPI

Kishinevskiy politekhnicheskiy institut Kishinev Polytechnical Institute

LEIS

Leningradskiy elektrotekhnicheskiy institut svyazi Leningrad Electrotechnical Communications Institute

LETI

Leningradskiy elektrotekhnicheskiy institut Leningrad Electric Engineering Institute

LGPI

Leningradskiy gosudarstvenny pedagogicheskiy institut Leningrad State Pedagogical Institute

LGU

Leningradskiy gosudarstvennyy universitet Leningrad State University

LIAP

Leningradskiy institut aviatsionnogo priborostroyeniya Leningrad Institute of Aviation Instrument Manufacture

LIIAAN

Leningradskiy institut informatiki i avtomatizatsii AN SSSR

Leningrad Institute of Information Science and Automation, Academy of Sciences USSR

LITMO

Leningradskiy institut tochnoy mekhaniki i optiki Leningrad Institute of Precision Mechanics and Optics

LMI

Pervyy Leningradskiy meditsinskiy institut imeni I.P. Pavlova

First Leningrad Medical Institute imeni I.P. Pavlov

LPI

Leningradskiy politekhnicheskiy institut Leningrad Polytechnical Institute

LTITsBP

Leningradskiy tekhnologicheskiy institut tsellyulozno-bumazhnoy promyshlennosti Leningrad Technological Institute of the Wood-Pulp and Paper Industry

MADI

Moskovskiy avtomobil'no-dorozhnyy institut Moscow Highway Institute

ME

Moskovskiy energeticheskiy institut Moscow Power Engineering Institute

MEISE

Smolenskiy filial Moskovskogo energeticheskogo instituta

Smolensk Branch of the Moscow Power Engineering Institute

MGPI

Moskovskiy gosudarstvennyy pedagogicheskiy institut Moscow State Pedagogical Institute

MOTI

Moskovskiy gosudarstvennyy institut Moscow State University

MIAN

Matematicheskiy institut imeni Steklova AN SSSR Mathematics Institute imeni Steklov, Academy of Sciences USSR, Moscow

MIET

Moskovskiy institut elektronnoy tekhniki Moscow Institute of Electronic Engineering

Moskovskiy inzhenerno-fizicheskiy institut Moscow Engineering Physics Institute

MIIT
Moskovskiy institut inzhenerov zheloznodorozhnogo

transporta Moscow Institute of Railroad Transport Engineers

MIREA
Moskovskiy institut radiotekhniki, elektroniki i
avtomatiki

Moscow Institute of Radio Engineering, Electronics and Automation

MISIS

Moskovskiy institut stali i splavov Moscow Institute of Steel and Alloys

MITKhT

Moskovskiy institut tonkoy khimicheskoy tekhnologii Moscow Institute of Fine Chemical Technology

MNTKMikrokhirurgiya

Mezhotrasleviy nauchno-tekhnicheskiy kompleks "Mikrokhirurgiya glaza"

Interbranch Scientific-Technical Complex for Microsurgery of the Eye (formerly MNIIMG)

MPI

Moskovskiy poligraficheskiy institut Moscow Printing Institute

MPNILMolBBKh

Mezhfakultet'skaya problemnaya NI laboratoriya molekulyarnoy biuologii i bioorganicheskoy khimii im, A.N. Belozerskogo

Interfaculty Problem-Solving Scientific Research Laboratory for Molecular Biology and Bio-Organic Chemistry imeni A.N. Belozerskiy

MVTU

Moskovskoye vyssheye tekhnicheskoye uchilishche imeni Baumana

Moscow Higher Technical College imeni Bauman NIFKhI

NI fiziko-khimicheskiy institut im Karpova Scientific Research Institute of Physicochemistry imeni Karpov

NIIFKhMe

NII fiziko-khimicheskoy meditsiny Scientific Research Institute of Physical and Chemical Medicine, Moscow

NIIFKS

NII fiziki kondensirovannykh sred Yerevanskogo gosudarstvogo universiteta

Scientific Research Institute of the Physics of Condensed Media of Yerevan State University

NIIFL
NII fiziki pri Leningradskom gos universitete
Scientific Research Institute of Physics at
Leningrad State University

NIIMF

NII mekhaniki i fiziki Saratovskogo gosuniversiteta Scientific Research Institute of Mechanics and Physics at Saratov State University

NIIYaF

NII yadernoy fiziki pri Moskovskom gos universiteta Scientific Research Institute of Nuclear Physics at Moscow State University

NIIYaFT

NII yadernoy fiziki pri Tomskom politekhnicheskom institute

Scientific Research Institute of Nuclear Physics at Tomsk Polytechnic Institute

.NITsTLAN

NI tsentr po tekhnologicheskim lazeram AN SSSR Scientific Research Center for Industrial Lasers, Academy of Sciences USSR

NTOAN

Nauchno-tekhnicheskoye ob"yedineniye AN SSSR Scientific and Technical Association, Academy of Sciences USSR

OGU

Odesskiy gosudarstvennyy universitet Odessa State University

Omskmedinst

Omskiy meditsinskiy institut Omsk Medical Institute

OTANUz

Otdel teplofiziki AN Uzbekskoy SSR
Department of Thermophysics, Academy of Sciences
Uzbek SSR

RGU

Rostovskiy-na-Donu gos universitet Rostov on Don State University

SFTI

Sibirskiy fiziko-tekhnicheskiy institut im Kuznetsova Siberian Physicotechnical Institute im Kuznetsov, Tomsk SKBSAT

Spetsial'noye konstruktorskoye byuro sredstv analiticheskoy tekhniki, Ministerstvo priborostroyeniya, sredstv avtomatizatsii i sistem upravleniya SSSR (Minpribor) Special Design Office for Analytical Technology Equipment,

USSR Ministry of Instrument Making, Automation Equipment, and Control Systems, Uzhgorod

SKTBMSOAN

Spetsial'noye konstruktorsko-tekhnicheskoye byuro monokristallov SOAN SSSR

Special Design and Technological Bureau of Monocrystals, Siberian Branch Academy of Sciences USSR, Novosibirsk

TashGU

Tashkentskiy gosudarstvennyy universitet Tashkent State University

TbGU

Tbilisskiy gos universitet Tbilisi State University

TIASUR

Tomskiy institut avtomatizirovannykh sistem upravleniya i radioelektroniki

Tomsk Institute of Automated Control Systems and Radioelectronics

TOI

Tikhookeanskiy okeanologicheskiy institut Dal'nevostochnogo nauchnogo tsentra AN SSSR Pacific Oceanographic Institute, Far Eastern Science Center, Academy of Sciences USSR, Vladivostok

ToPI

Tomskiy politekhnicheskiy institut

Temsk Polytechnic Institute

TsKBUP

Tsentral'noye konstruktorskoye byuro unikal'nogo priborostroyeniya AN SSSR

Central Design Office for Unique Instrument Building, Academy of Sciences USSR, Moscow

TsNIISLO

Tsentral'nyy nauchno-issledovatel'skiy institute svyazi, Leningradskoye otdeleniye

Central Scientific Research Institute of Communications, Leningrad Branch

TurkPI

Turkmenskiy politekhnicheskiy institut Turkmen Polytechnic Institute, Ashkhabad

UzhGU

Uzhgorodskiy gosudarstvennyy institut Uzhgorod State University

VGI

Vysokogornyy geofizicheskiy institut

High-Altitude Geophysical Institute, Nal'chik

VGNIPIKFP

Vsesoyuznyy gos NI i proyektnyy institut fizikofotograficheskoy promyshlennosti

All-Union State Scientific Research and Planning Institute of the Photographic Chemical Industry, Moscow

VilGU

Vil'nyusskiy gos universitet Vilnius State University

VilGUNTsLI

Nauchnyy tsentr lazernykh issledovaniy Vil'yusskogo gosudarstvogo universiteta

Scientific Center for Laser Research of Vilnius State University

VIMSA

Vsesoyuznyy NI institut mineral'nogo syrya All-Union Scientific Research Institute of Mineral Resources, Moscow

VISI

Voronezhskiy inzhenerno-stroitel'nyy institut Voronezh Engineering Institute

VNIFTRI

VNII fiziko-tekhnicheskikh i radiotekhnicheskikh izmereniy

All-Union Scientific Research Institute of Physico-Technical and Radiotechnical Measurements, Moscow VNIIGBol

VNII glaznykh bolezney

All-Union Scientific Research Institute of Eye Diseases, Moscow

VNIIOFI

VNII optiko-fizicheskikh izmereniy All-Union Scientific Research Institute of Optophysical Measurements, Moscow

YaPI

Yaroslavskiy politekhnicheskiy institut Yaroslav Polytechnic Institute

YeGU

Yerevanskiy gos universitet Yerevan State University ZILVTUZ

Vyssheye teknicheskoye uchebnoye zavedeniye Moskovskogo avtomobil'nogo zavoda im. I.A. Likhacheva Higher Technical School at Moscow Automobile Plant imeni I.A. Likhachev

ABDULAYEV N G ABDULLIN R M ABDURAKHMANOV I A ABDURAKHMANOV M A ABEN KH K ABESADZE T SH ARRAMOV A A ABROSIMOV G V ABROSKIN A G ADAMCHUK A N ADILOV K A AFANAS'YEV I G AFANAS'YEV I G AFANASIADI L SH AFRAILOV M A AGAYEV A N AGLADZE N I AKHEKYAN A M AKHMANOV S A AKHMETOV S F AKHMETOV S F AKHMETOV A I AKIMOV A V AKIMOV A I AKIMOV A V AKIMOV A I AKIMOV A V AKIMOV B G AKOPYAN R S AKSENOV V P AL'SHITS YE I ALEKSANDROV M L ALEKSANDROV M L ALEKSANDROV M L ALEKSHKEVICH V A ALIMOV D T ALIMPIYEV A I ALIMPIYEV A I ALLAKHVERDIYEV K R ALMAYEV R KH ALOV D L ALYAKSHEV F F AMAN T AMOSOV P V ANAN'YEV YU A ANDRIYERIN M	50	ADITOTINVAN G V	30.34	BELOBORODOV V V	42
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ALLAKHVERDIYEV K R	60	BARABANENKOV YU	N 42	BOKUI D V	1
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